

Contour-to-contour Allocations Study

The University Of Washington

REFERENCE
47 00 24.6 N.
122 55 06.3 W.

CH# 297D - 107.3 MHz, Pwr= 0.02 kW, HAAT= 12.8 M, COR= 95 M
Average Protected F(50-50)= 3.74 km
Omni-directional

DISPLAY DATES
DATA 08-02-13
SEARCH 08-02-13

CH CITY	CALL	TYPE ANT STATE	AZI <--	DIST FILE #	LAT LNG	PWR(kW) HAAT(M)	INT(km) COR(M)	PRO(km) LICENSEE	*OUT* (Overlap in km)
297D Olympia	1549196	APP _C_ WA	0.0 0.0	0.00 BNPFT20030317HJY	47 00 24.6 122 55 06.3	0.020	21.0 95	6.3 The University Of Washing	-27.3*
299C Seattle	KNDD	LIC DC_ WA	51.8 232.5	90.13 BLH20080807ABS	47 30 14.0 121 58 29.0	68.000 707	13.5 940	94.7 Entercom Seattle License,	-4.9*>*
295C1 Bremerton	KRWM	LIC ZCX WA	45.4 226.0	85.47 BMLH20051207AGQ	47 32 39.0 122 06 29.0	49.000 396	9.8 521	74.9 Seascope Radio, Inc.	10.2
297A Cosmopolis	KLSY	CP NCX WA	262.8 82.2	62.29 BMPH20121204ACM	46 56 00.0 123 43 57.0	4.100 122	86.4 208	28.0 Jodesha Broadcasting, Inc.	20.0
296C3 Castle Rock	KRQT	LIC NCX WA	190.4 10.3	75.54 BLH20081216AAF	46 20 18.0 123 05 45.0	0.800 523	66.2 809	43.7 Bi coastal Media Licenses I	26.3
300A South Bend	KLSY	LIC ZCX WA	242.2 61.6	73.51 BLH20070222AOM	46 41 44.0 123 46 17.0	0.790 276	1.1 366	20.7 Jodesha Broadcasting, Inc.	50.8
297D Greenwater	K297BD	LIC _V_ WA	73.4 254.2	84.80 BLFT20120618AAQ	47 13 09.0 121 50 31.0	0.002	42.0 1249	8.6 Calvary Chapel Of Twin Fal	63.1
295D Aberdeen	K295BO	LIC DH_ WA	268.5 87.9	66.50 BLFT20130701ADB	46 59 18.0 123 47 42.0	0.125 68	0.1 140	2.9 Grays Harbor Christian Bro	63.1

Terrain database is USGS 03 SEC , R= 73.215 qualifying spacings or FCC minimum Spacings in KM, M= Margin in KM
In & Out distances between contours are shown at closest points. Reference zone= West Zone, Co to 3rd adjacent.
All separation margins (if shown) include rounding
Ant Column: (D= DA Standard, Z= DA 73.215, N= Not DA 73.215, _= Omni), Polarization (C,H,V,E), Beamtilt(Y,N,X)
Incoming contour overlap is ignored.
***affixed to 'IN' or 'OUT' values = site inside protected contour.
Reference station has protected zone issue:
">*" Protected using U/D - see Sec. 74.1204 (d) Exhibit - on page #3

HOW TO READ THE FM COMPUTER PRINT-OUT

Translator Reference Station

The computer printout should be self-explanatory for the most part. The parameters of the station being checked, (reference station) are printed in the heading. The 60 dBu protected contour is predicted from the Commission's F(50-50) table. Contour distances are in kilometers and are predicted using the Commission's TVFMINT FORTRAN subroutine. When interference contour distances are less than 16 kilometers the F(50-50) tables are used. If signal contour distances are less than 1.6 km the free-space equation is used.

All distances are derived by the method detailed in Sec. 73.208 of the Rules and Regulations as amended in Docket 80-90. The column labeled "* OUT *" shows the greatest distance in kilometers of overlap (or smallest distance of clearance) between the reference station's interference contour and the database station's protected contour. Negative distance figures in this column indicate outgoing contour overlap. Since translators are able to receive interference there is no "In" or incoming column in this report.

Listed antenna heights and power are the specific antenna heights and power from the FCC database.

Under the "AZI" column, the first row of numbers indicate the True North azimuths from the reference station toward the database stations, while the numbers in the second row indicate the reverse bearings from the database stations to the reference station. Bearings are calculated using spherical trigonometry.

The columns labeled "INT" and "PRO" contain the distance in kilometers of the appropriate interference contour and the protected contour of a data base station.

For I.F. relationships the minimum spacings the "OUT" columns change its significance. The letter "R" stands for the minimum **required** distance in kilometers, while the letter "M" in the next column displays the **available clear space** separation in kilometers. Minimum separation distances when displayed are taken from Sec 73.207 of the rules as amended. Canadian and Mexican separation distances, U/D ratios and protected contour values are from the US/Mexican Working Agreement and the US/Canada Working Agreement".

The first three letters of the "TYPE" column identify the current FCC status of the stations. The fourth letter will be a "D" if the facility is directional. "Z" indicates a 73.215 directional. An "N" indicates it is a 73.215 station that operates with an omni-directional antenna. The fifth letter will be an E, H or V depending on the type of antenna polarization. The sixth letter will be a "Y" if the antenna uses beam tilt or an "X" if the commission is not sure, otherwise it will be an "N" or left blank.

1549196 Olympia, WA - 8/2/2013
 Translator 74.1204(d) Showing
 Translator Maximum Licensed ERP = 0.02
 Translator Antenna Height AG = 44.6 Meters
 Antenna Model = SHPX4H

Protected Station's Contour = 61.8784 dBu
 Translator's full Interference contour 101.8784

Review Azimuth = Degrees True
 Horizontal Relative Field at Review Azimuth = 1.000
 Horizontal Translator ERP at Review Azimuth = 0.02 kW
 Distance between stations = 90.1
 Protected Station= KNDD, 68 kW, 940 M Meters COR AMSL

Depression Angle From Horizon(Deg)	Vertical Relative Field	Horizontal Relative Field	ERP (kw)	Dist to IX Contour Along Dep. Angle(m)	Dist to IX Contour From Tower Base(m)	Height IX Above Ground (m)
00.00	1.0	1.0	0.0200	252.6940	252.6940	044.600
05.00	0.951	1.0	0.0181	240.3120	239.3976	023.655
10.00	0.814	1.0	0.0133	205.6930	202.5680	008.882
15.00	0.615	1.0	0.0076	155.4068	150.1115	004.378
20.00	0.391	1.0	0.0031	098.8034	092.8448	010.807
25.00	0.178	1.0	0.0006	044.9795	040.7653	025.591
30.00	0.004	1.0	0.0000	001.0108	000.8754	044.095
35.00	0.117	1.0	0.0003	029.5652	024.2184	027.642
40.00	0.182	1.0	0.0007	045.9903	035.2306	015.038
45.00	0.2	1.0	0.0008	050.5388	035.7363	008.864
50.00	0.184	1.0	0.0007	046.4957	029.8869	008.982
55.00	0.15	1.0	0.0005	037.9041	021.7409	013.551
60.00	0.11	1.0	0.0002	027.7963	013.8982	020.528
65.00	0.072	1.0	0.0001	018.1940	007.6891	028.111
70.00	0.042	1.0	0.0000	010.6131	003.6299	034.627
75.00	0.021	1.0	0.0000	005.3066	001.3734	039.474
80.00	0.008	1.0	0.0000	002.0216	000.3510	042.609
85.00	0.002	1.0	0.0000	000.5054	000.0440	044.097
90.00	0.001	1.0	0.0000	000.2527	000.0000	044.347

